

Contaminants Working Group



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Process since last TF meeting

- Narrowed from 117 actions to 8 of the highest impact actions
- Focus shifted from impacts to SRKW, to impacts to their food
- Identified Source control (policy and incentives), treatment and cleanup actions

Potential action #1

- Problem: Many contaminants of emerging concern are not regulated, or assessed for toxic impacts, before they are introduced into commerce or industrial processes. These chemicals can—and often do—find their way into our waters through wastewater plants and stormwater runoff. It can be very expensive to clean-up or provide water quality treatment at the 'end of pipe'
- Potential action:
Toxics Substances Control Act Reform

Potential action #2

- Problem: The current PCB ban allows for 'inadvertent' production allowing for 'low' levels of PBCs in consumer products.
- Potential action:
Full PCB Ban in Consumer Products

Potential action #3

- Problem: Emerging contaminants are poorly understood and regulated.
- Potential action: **Prioritize Chemicals and Develop and Implement Plans to Reduce Harm**

Potential action #4

- Problem: Even with bans or regulations in place, there are significant quantities of in products created before the bans still in use and contributing to toxic contamination of ecosystems that impact and support SRKW.
- Potential action: **Incentives and Swap-outs to Reduce Legacy Sources**

Potential action #5

- Problem: Current regulations may not be strong enough, and implementation and enforcement could be improved
- Potential action: **Improve Effectiveness, Implementation, and Enforcement of NPDES Permits**

Potential action #6

- Problem: Legacy sources of toxic stormwater runoff still contribute significant loads of toxics into important habitat
- Potential action: **Stormwater Threat Reduction: Prioritization, planning, source control, treatment, and incentives**

Potential action #7

- Problem: Legacy cleanup is slow, not always prioritized, and often underfunded.
- Potential action: **Sediment Remediation and Nearshore Restoration**

Potential action #8

- Problem: There are current data gaps regarding contaminant inputs, effects, and what levels would be protective of whales, prey, and species in lower trophic levels
- Potential action: **Monitoring and New Science**

Vessels Working Group

Todd Hass, PhD

Chair, Vessels Working Group

Puget Sound Partnership

August 7 2018



The screenshot shows the 'Puget Sound Vital Signs' website. The header includes the logo and navigation links for 'VITAL SIGNS', 'RECOVERY ATLAS', and 'REPORT CARD'. The main content area is titled 'Orcas' and features a pink header bar. Below the title, there is a text block stating: 'Southern Resident Killer Whales once numbered around 200 whales, but in the past decade the population has totaled fewer than 90 individuals.' Below this text, it says 'Indicator Lead: Ken Balcomb, Center for Whale Research'. At the bottom of the text block, there are two links: 'View Report Card' and 'Download PDF from the latest State of the Sound report'. To the right of the text is a photograph of an orca swimming in the water. Above the photo, it says 'Data last updated on March 16, 2018' and 'Photo Credit: Michael Ford'. A 'PICK A VITAL SIGN TO EXP' button is visible in the top right corner of the page.

Process since last TF meeting

- WG: 1 Web Ex meeting, 1 full day meeting, followed by online surveys for considerations (92pp and 76pp of results)
- Added 1 action to the list of 6 in June based on TF input, WG revised wording of actions in July
- WG indicated their level of interest in the remaining 30 compiled actions for now/next phase of work
- WG added another 9 new actions in July
- TF members have submitted at least two more new potential actions that TF and WG haven't seen/assessed yet

16 potential actions assessed

- Effectiveness: 10 High, 5 Medium, 1 Low
- Portfolio:
 - 7 small vessel* actions (3 H, 3 M, 1 L)
 - 1 sonar action (H)
 - 4 large vessel** actions (2 H, 2 M)
 - 4 ferries actions (All 4 H)

* Includes: No go zones & Commercial Whale-watching vessels, from matrix subheadings

** Includes: Permit applications

Potential action #1

Potential action: Establish a no-wake zone for small vessels (<65ft) and commercial whale watching vessels within sight of orcas, while dedicating resources and capacity towards associated education and enforcement.

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	Action	E	A	I	Timeline for SRKW Benefits	Supporting and Dissenting Opinions on Ratings from Discussion (if applicable)	Geographic Specificity Progress	Notes
SMALL VESSELS								
1	Potential action 1. (updated) Establish a no-wake zone for small vessels (<65ft) and commercial whale watching vessels within sight of orcas, while dedicating resources and capacity towards associated education and enforcement. ** EE, A22	H	M	M	Immediate	<p>Supporting</p> <ul style="list-style-type: none"> Research indicates vessel speed is best explanatory factor on noise level received by SRKW Prevents loud noise spikes by vessels departing/arriving > 5knots Reduces likelihood and severity of vessel strikes <p>Dissenting</p> <ul style="list-style-type: none"> Enforcement challenges cited by NOAA in 2011, however most expressed that modification to a "no wake" standard would promote compliance by boaters 	Puget Sound	<ul style="list-style-type: none"> Focuses on regulating recreational vessel compliance with approximation of Soundwatch guidelines—such vessels have shown 20x+ lower compliance than commercial whale watching vessels (incident rate ~<1/hour) Potential 13dB reduction in underwater noise (Jasco 2018) Up to 20% gain in SRKW energy budget (Bain 2006)

Potential action #1

Potential action: Establish a speed no-wake and *low speed (4 or 7 knots = 13 or 7 dB reduction within 1km)* zone for small vessels (<65ft) and commercial whale watching vessels within sight of orcas, while dedicating resources and capacity towards associated education and enforcement. **

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Focusing on matrix & additions

- 168pp of survey results, plus WG meeting input is condensed in the 6 page matrix
- Recorded spirit and letter of actions (e.g., *pioneer vs limited entry* in permit system)
- Challenges:
 - Volume, pace of review: TF quote--“I may have missed it...”
 - Capturing post-WG edits/contextual additions (e.g. substituting “require” for “encourage”)
 - Adding new actions (without precedent in other 53!) by WG members (e.g., kayak restrictions; making access to SRKWs more restricted Friday-Sunday and much more restricted Monday-Thursday, etc.)

Re-focus on matrix and additions

- 168pp of survey results, plus WG meeting input is condensed in the 6 page matrix
- Challenges:
 - Volume, pace of info: “I may have missed it...”
 - Capturing post-WG edits/contextual additions (e.g. substituting “require” for “encourage”)
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e.g., raised effectiveness assessment to high for sonar/echosounders (50kHz present ~1/3 of time), and whale-watching permit system (because complements other actions much like education and enforcement do)

Review/refer to printed matrices

- Offer reviews in carousel
- Worried that details I present now will be forgotten if done too far in advance (i.e., need to be repeated)
- Will capture additions/amendments in flip charts and report out at end

Prey Working Group



WASHINGTON STATE

Governor's
Salmon
Recovery
Office



Steve Martin
Governor's Salmon
Recovery Office



Washington
Department of
**FISH and
WILDLIFE**

Penny Becker
Washington Department
of Fish and Wildlife

Prey WG Process

- We've met 4 times in person, with each subcommittee (4Hs+P) meeting via conference call 1-2 times in between to refine each action and considerations
- WG is not just state agency employees but independent scientists, tribal managers and scientists, local governments, non-profit organizations, etc who individually and collectively know these threats and actions needed to make a difference

- Proud of the breadth of options and information the WG was able to provide for the TF. Including some incredibly bold actions have been identified for the TF to consider.
- We focused on providing scoring of immediacy of benefit, affordability, ease of implementation, and effectiveness of each of the 25 actions.

- You will break out today to (1) recommend which potential actions you would like to move forward, (2) relate any specific information or refinement needed for an action, and (3) relay questions you have about an action
- Keep in mind, the TF identified that we need:
 - Actions that will benefit the whales now, in the intermediate term and in the long term.
 - To identify a suite of multiple solutions (including those that work best together) rather than looking for just one solution

- Once the TF refines the list of actions, the WGs will work in the coming weeks to provide more:
 - geographic specificity, at appropriate level and where appropriate to do so
 - principles or procedures for implementation where appropriate
 - estimates on level of magnitude of each action (how much funding, acres, etc.)

Hatchery

Action	Timeline for Benefits
<u>A. Increase hatchery production at facilities that most benefit SRKWs and apply measures to remove excess hatchery fish before they reach spawning grounds (e.g. weirs, mark-selective harvest)</u>	Intermediate
<u>B. Perform actions in hatcheries to increase productivity, smolt-to-adult survival and/or marine survival of Chinook (including but not limited to reducing predation on hatchery fish), adjust return timing and locations to align with whale needs, increase size and age of return, and reduce potential competition with wild fish</u>	Intermediate

Harvest

Action	Timeline for Benefits
<u>A: Further limit Chinook harvest in areas important to SRKW foraging</u>	Immediate
<u>B: Subsidize or compensate fishers to not fish</u>	Immediate
<u>C: Reduce non-targeted fisheries' impact, including limiting gear types that increase mortality and incentivizing innovative gear types that decrease mortality, and by-catch</u>	Immediate
<u>D. Negotiate reductions in AK and Canadian fisheries to allow more Chinook to reach WA waters</u>	Long-term
<u>E: Reduce marine harvest and transfer opportunity to terminal fisheries</u>	Immediate
<u>F: Implement slot size limits to get larger fish to whales, spawning grounds, and hatcheries (put a maximum size limit on catch)</u>	Long-term

Predation

Action	Timeline for Benefits
<u>A. Remove or alter artificial habitats or breeding locations so they are not as attractive to predators (Pinnipeds and Birds)</u>	Immediate
<u>B. Lethal removal to benefit specific runs and stocks</u> <u>Pinnipeds</u> <u>Birds</u> <u>Fish</u>	Intermediate
<u>C. Lethal removal in order to establish new baseline population levels</u> <u>Pinnipeds</u> <u>Birds</u> <u>Fish</u>	Intermediate
<u>D. Employ new non-lethal hazing or exclusion techniques</u>	Immediate

Hydro

Action	Timeline for Benefits
<p><u>A1. Recommend that Ecology adjust gas caps (match or exceed OR's gas caps) on the Snake and Columbia rivers to allow flexibility to adjust spill regimes, as needed, to benefit Chinook salmon and other salmonids.</u></p> <p>-</p> <p><u>A2. Recommend that Ecology adjust gas caps (match or exceed OR's gas caps) on the Snake and Columbia rivers and that spill be increased to benefit Chinook salmon and other salmonids.</u></p>	Intermediate
<p><u>B. Regional partners review, and where appropriate, revise standards for juvenile survival in river associated with dams</u></p>	Intermediate
<p><u>C. Increase survival at predation hot spots near dams</u></p>	Intermediate
<p><u>D. Where it helps provide safer passage, improve fish screens and eliminate entrainment in diversions at dams. Consolidate diversions to reduce risks to salmon</u></p>	Intermediate
<p><u>E. Prioritize and fund re-establishment of runs into currently blocked areas above dams in those areas that can successfully produce more salmon.</u></p>	Intermediate
<p><u>F. Remove dams in locations that most benefit Chinook passage</u></p>	Intermediate

Habitat

Action	Timeline for Benefits
<u>A. Increase the implementation & enforcement of existing local, state and federal habitat protection regulations</u>	Immediate
<u>B. Enhance/change local, state and federal protection regulations, especially for key Chinook/SRKW habitats or areas</u>	Immediate
<u>C. Acquire important Chinook habitat</u>	Immediate- existing habitat; Long-term- habitat restoration
<u>D. Accelerate habitat restoration by increasing funding significantly to address current regional priorities, including fish blockages in areas most beneficial to SRKW</u>	Intermediate- blockages; Long-term- restoration
<u>E. Create additional or bolster existing habitat protection and restoration incentives for landowners</u>	Immediate- existing habitat; Long-term- habitat restoration

Forage Fish

Action	Timeline for Benefits
<p><u>A. Increase Forage Fish populations through:</u> <u>Habitat restoration</u> <u>Habitat protection</u></p>	Intermediate
<p><u>B. Increase Forage Fish populations through:</u> <u>Harvest reductions</u></p>	Intermediate